

PROPOSAL EVALUATION

Proposition 84 Integrated Regional Water Management (IRWM) Grant Program

Implementation Grant, Round 1, FY 2010-2011

Applicant	Upper Mokelumne River Watershed Authority	Amount Requested	\$2,703,327
Proposal Title	Mokelumne/Amador/Calaveras (MAC) IRWM Region Proposition 84 Implementation Grant Application	Total Proposal Cost	\$3,069,634

PROPOSAL SUMMARY

Four projects are included in the proposal: (1) Lake Camanche Tank Rehabilitation and Lateral Replacement Project (Disadvantaged Community {DAC} project); (2) Amador Water System Leak Detection and Repair Program; (3) West Point Water Main and Tank Replacement Project (DAC project); and (4) Camanche Regional Water Treatment Plant.

PROPOSAL SCORE

Criteria	Score/ Points Possible	Criteria	Score/ Points Possible
Work Plan	15/15	Economic Analysis – Water Supply Costs and Benefits	12/15
Budget	5/5	Water Quality and Other Expected Benefits	3/15
Schedule	5/5	Economic Analysis – Flood Damage Reduction	0/15
Monitoring, Assessment, and Performance Measures	4/5	Program Preferences	10/10
Total Score (max. possible = 85)			54

EVALUATION SUMMARY

The following is a review summary of the applicant's proposal.

Work Plan

The criterion is fully addressed and supported by thorough and well-presented documentation and logical rationale. The applicant provides a detailed description that includes: goals and objectives for each project; a well-organized table that summarizes each project; appropriate maps; and a discussion of the integrated elements of the projects with the IRWM plan. For each project, a description of completed work is provided, as well as details of existing data and technical studies and maps showing the project locations. The work plan includes appropriate tasks and reporting requirements for each of the four projects, and the tasks are discussed in great detail, are methodical in their presentation. Where appropriate, California Environmental Quality Act (CEQA) documentation is included, or tasks are dedicated towards completing or updating CEQA review if funding is secured. Two of the proposed projects are phased projects. The phased project descriptions are well supported. The work plan includes tasks for permitting each project (i.e.,

NPDES, FERC, grading, etc). Overall, the applicant has provided a very well organized application with detailed project descriptions, clear background information, appropriate technical documents, and a work plan with clear methodology that complies with the relevant Basin Plan.

Budget

Budgets for all the projects in the Proposal have detailed cost information, costs appear reasonable, and all the budget categories are thoroughly supported with tables and written explanations. Each project includes a summary budget, supporting information, labor hours, and unit costs. The budget tables are well supported by descriptions of how costs estimates were derived and strong supporting documentation is included with each cost breakdown. Additional cost information is presented in the relevant technical studies included in the work plan section of the application. Direct Project Administrative Costs are less than 5% of the total Proposal costs, as encouraged in the Proposal Solicitation Package (PSP).

Schedule

The overall schedule is consistent and reasonable. It demonstrates readiness to begin construction or implementation of each of the four proposed projects by December 1, 2011. The projects are scheduled to be completed by the end of December 2012. Applicant states Project Performance Monitoring Plans will continue post-construction up to 10 years or as required by the grant agreement. The work plan and schedule includes tasks for getting required permits for each project; and the timelines for acquiring permits generally appear reasonable. The schedule presented by the applicant is consistent with the tasks outlined in the work plan and correlate with the assumptions in the Budget.

Monitoring, Assessment, and Performance Measures

The criterion is fully addressed but is not supported by thorough documentation. Each project has a Project Performance Measures Table that includes the required items as required by the program. The narrative in Attachment 6 only identifies one of the four proposed projects as providing water quality benefits; however, two projects were identified as improving water quality by the reviewers, Project 1 and 3. Project 4 specifically addresses drinking water quality in State Water Board Resolution No. 88-63, Sources of Drinking Water Supply. These projects are consistent with the Basin Plan for the Sacramento-San Joaquin region (September 2009). The output indicators effectively track output for Project 1, 2, and 3. Project 4 only notes existing operating records and metering data records for output indicators. For Project 4, it is unclear how the listed output indicators will meet the California Department of Public Health (CDPH) drinking water quality requirements (i.e., laboratory analysis for drinking water quality). Therefore, the outcome indicators are adequate to evaluate change resulting from the work for Projects 1, 2, & 3, but not for Project 4.

Economic Analysis – Water Supply Costs and Benefits

Above average levels of water supply benefits relative to costs can be realized through this proposal, based on the quality of the analysis and supporting documentation. All projects provide water supply benefits. Description of quantified and qualitative benefits is good.

Project 1 present value (PV) of costs is \$0.485 million (M), and undiscounted capital cost matches the value in Table 7. Applicant presents two calculations for water supply benefits. One values the avoided tank and pipe leaks at the total variable cost per MG of treated water, cited as \$2,070 per million gallons (MG) (about \$675 per acre-feet (AF)). No citation to back up this value per MG was found. Proposal also shows

the avoided cost of building new tanks, but appropriately does not count both values. Also, the avoided pipeline leaks are valued at \$2,070 per MG. PV of quantified benefits is \$0.492 M.

Project 2 PV of cost however does include an estimate of the actual repair and replacement cost. Costs are shown in 2009 dollar (\$) and capital cost matches that shown in Table 7. Total PV of cost is \$0.594 M. Quantified water supply benefit includes the value of the avoided leakage (PV of \$0.871 M) plus the avoided repair costs of responding to breaks and emergency repairs (PV of \$0.126 M). Avoided repair cost is stated as \$10,000 per year, assuming 1 avoided main repair per year. Reference for the avoided cost is cited as a discussion with the district engineering staff. Total PV of benefits is \$0.998 M. Description acknowledges uncertainty about the magnitude of water savings.

Project 3 PV of costs is \$1.194 M, and undiscounted capital cost matches the value in Table 7. Applicant presents two calculations for water supply benefits. One values the avoided tank and pipe leaks at the total variable cost per MG of treated water, cited as \$1,700 per MG (about \$550 per AF). This is smaller than the avoided cost used for the above two projects. PV of avoided leaks is \$0.062 M. The much larger quantified benefit is the avoided cost of storage provided in an alternative project and the avoided cost of emergency leak repairs. An alternative storage project was not described as part of the no-project condition – it is not demonstrated that the alternative project would be required or actually built. Reference for the avoided cost is cited as a discussion with the district engineering staff. PV of the quantified storage and repair cost benefits is \$0.841 M.

Project 4 is the first phase of a larger project that would also upgrade water treatment and distribute treated water for customers, including new areas. Costs are not quantified in Attachment 7, but capital costs are shown in the Budget Attachment as \$0.720 M. Table 10 in Attachment 8 shows the PV as \$0.605 M. Only qualitative benefits are described, although the text indicates avoided pumping operation and maintenance (O&M) of \$23,500 per year. Using a 40-year life and assuming a, the PV of this benefit would be about \$0.32 M. It is unclear why applicant did not include the quantified cost and benefit in tables and in Attachment 10. Qualitative benefits are also described, but appear to be based largely on the full build-out of the project rather than just the first phase.

Water Quality and Other Expected Benefits

Only low levels of water quality and other benefits relative to costs can be realized through this proposal, as demonstrated by the analysis and supporting documentation. All projects include water quality or other benefits. Only one project includes a small quantified benefit in this category. Benefits for all projects include water rate reduction or stabilization as a benefit. These are financial benefits to customers but not economic benefits for the agency – the economic benefit is already captured in the water supply benefit.

Project 1 water quality benefits include improved drinking water quality, emergency supplies, and rate stabilization. A quantified avoided chlorine treatment cost is included here at a claimed value of \$0.021 M in PV. Project 2 claims rate stabilization as a benefit. Project 3 provides other benefits to drinking water quality, emergency supplies, and rate stabilization. Project 4 would provide qualitative benefits that include improved drinking water quality and avoided water quality violations.

Economic Analysis – Flood Damage Reduction

No flood damage reduction benefit is claimed.

Program Preferences

The proposal sufficiently documents the breadth and magnitude of Program Preference claims with high levels of detail. The Proposal includes four projects that collectively will implement nine Program Preferences including: include regional projects or programs, effectively resolve significant water-related conflicts within or between regions, address critical water supply or water quality needs of disadvantaged communities within the region, drought preparedness, use and reuse water more efficiently, climate change response actions, protect surface water and groundwater quality, improve tribal water and natural resources, and ensure equitable distribution of benefits. The Proposal adequately addresses the program preference for long term drought preparedness and includes two projects (Project 1 & 3) directly meeting a critical water supply need of a Disadvantaged Community (DAC).